

wind at the peak, would often be marked by cloud formation when the general wind was clear. These valley clouds ascended to the peak, and there their tops were blown out in banner formation. Doctor Peattie described how while warming himself in the sunlight on a mountain top he could put his hand into the banner cloud, so close did it hug the peak.—*C. F. B. 557.577.3*

*The problem of aridity.*—About one-third of the globe, with a rainfall averaging less than 10 inches a year, is actually desert, while another third, with less than 20 inches, is unfit or barely fit for agriculture. The existence of this vast area of unprofitable land is a thorn in the flesh of humanity, and there is an almost universal feeling, based partly on sentiment and partly on economic considerations, that more and more of it should be reclaimed and made fit for use and habitation. This feeling has found expression in the United States in the building of many costly dams, reservoirs, and irrigation canals in selected regions of the arid and semiarid West.

These elaborate installations appear, with some exceptions, to justify their existence on several grounds. They have brought extremely fertile soil under cultivation, they have permitted the raising on a large scale of crops that could not be so successfully raised, with or without irrigation, in other parts of the country, and, by making the land habitable, they have promoted the development of various industries and the utilization of natural resources that might otherwise have remained untouched.

Doubtless the conquest of the desert will go on, yet it seems likely that the next generation of Americans will devote an even larger share of attention to the task

of protecting regions of abundant rainfall from the occasional disaster of drought than to attempt to eke out a normally scanty rainfall elsewhere. Western Europe has set us an admirable example in the irrigation of humid lands. Thus France, with a rainfall normally sufficient in all parts of the country for the needs of agriculture, irrigates more than 6,000,000 acres of her soil, while Italy, another generally well-watered land, irrigates 4,500,000.—*C. F. Talman in "Why the Weather?" a Science Service Feature.*

*Meteorological summary for Chile, September, 1929 (by J. Bustos Navarrete, Observatorio del Salto, Santiago, Chile).*—In this month there was moderate activity in atmospheric circulation. Rains were rather rare in the central zone, but somewhat more frequent in the southern zone.

The main depressions bringing periods of unsettled weather and rain were charted as follows: 14th–18th, crossing the southern part of the continent, accompanied by rain in the southern and by cloudy, changeable weather in the central zone; 19th–21st, also crossing the extreme southern region and prolonging the period of unsettled conditions caused by the preceding depression. This latter storm brought general rains in the south and the rain extended as far north as Santiago on the morning of the 20th. Lastly, there was the depression of the 26th–29th, which affected conditions over the southern and central regions and was attended by generally foul weather and heavy rains from Chiloe to Aconcagua.

The most important anticyclonic centers accompanied by fine weather were mapped as follows: 2d–4th, 4th–5th, 7th–11th, and 23d–25th. All of these moved from southern Chile toward Argentina.—*Translated by W. W. R.*

## BIBLIOGRAPHY

C. FITZHUGH TALMAN, in Charge of Library

### RECENT ADDITIONS

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